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SUBSTITUTE SPECIFICATION FOR APPLN. SER. NO. 09/369,090

ULTRASONIC MOTOR AND ELECTRONIC APPLIANCE
WITH ULTRASONIC MOTOR

#11
Hypack
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BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention pertains to ultrasonic motors used for timepieces, cameras, printers, memory devices and so on. More particularly, the present invention pertains to an ultrasonic motor with reduced vibration inefficiency to more efficiently transmit a drive force to a moving member;

2. Description of the Related Art

A conventional ultrasonic motor utilizes, as power to move a moving member, elliptic vibration that is a resultant vibration of expansion-and-contraction vibration and flex vibration caused on a piezoelectric element applied by a drive signal such as an alternating current voltage. Recently, attention has been drawn to ultrasonic motors particularly in the field of micro-mechanics, because of their high electric-to-mechanical energy conversion efficiency.

A conventional ultrasonic motor generally has a piezoelectric element as a drive power source, a signal transmission means for transmitting drive signals to the piezoelectric element, and an elastic member for pressure-contacting the piezoelectric element with the moving member to efficiently transmit drive power to the moving member.

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